Document Log Item

Addressing	
From	**To**
David Stensby/R9/USEPA/US	"Clark, David J CIV NAVFAC SW" <david.j.clark2@navy.mil> "Clark, David J CIV NAVFAC SW" <david.j.clark2@navy.mil>
CC	**BCC**
"Sullivan, James B CIV NAVFACHQ, BRAC PMO" <james.b.sullivan2@navy.mil> Remedios Sunga <rsunga@dtsc.ca.gov>	

Description			Form Used: Memo
Subject		**Date/Time**	
Fw: NSTI Site 21 HHRA Addendum: Draft Responses to Comments on the Draft HHRA Addendum		11/21/2012 02:00 PM	
# of Attachments	**Total Bytes**	**NPM**	**Contributor**
0	6,671		

Processing
Comments

Body

Document Body

Dave and Jim,

Here are some additional comments from EPA's toxicologist on the Site 21 HHRA Addendum responses to comments. Sorry for the delay in transmitting them. I was out of the office when they came in. Let me know if you have any questions.

----- Forwarded by David Stensby/R9/USEPA/US on 11/21/2012 01:57 PM -----

From: Gerald Hiatt/R9/USEPA/US

To: David Stensby/R9/USEPA/US@EPA
Date: 11/09/2012 02:09 PM
Subject: Re: Fw: NSTI Site 21 HHRA Addendum: Draft Responses to Comments on the Draft HHRA Addendum

---

David, I have reviewed the Cal/EPA, Dept of Toxic Substances Control (DTSC), Human and Ecological Risk Office (HERO) memo (TL Behrsing > R Sunga) titled "Responses to Comments for Draft Human Health Risk Assessment Addendum, Installation Restoration Site 21, Naval Station Treasure Island, San Francisco, California" (dated October 19, 2012).

I am in agreement with all of the comments made by HERO and would like to elaborate on a couple of specific points.

Response to General Comment 2b: It is important to reiterate that risk-based soil gas screening levels addressing the potential for vapor intrusion, such as the California Human Health Screening Levels (CHHSLs), are designed to be applied to soil gas concentrations measured at depth, ideally close to the source of volatile contamination. It is generally not appropriate to use them when screening volatiles sampled immediately below a building slab fundation. Sub-slab-to-indoor air attenuation factors are generally more conservative (assume greater penetration) than soil gas screening levels such as CHHSLs. DTSC has a set of default attenuation factors to be used to screening sub-slab concentrations and it is expected that U.S. EPA, OSWER (Office of Solid Waste and Emergency Response) will soon issue revised vapor intrusion guidance, which will contain EPA default sub-slab-to-indoor air attenuation factors.

Response to General Comment 12 iii:

1. As noted by HERO, guidelines for evaluating non-cancer hazards from short-term exposures to TCE are still being developed. I am hopeful that additional guidance is forthcoming from OSWER and the potential for indoor air exposures at this site should be revisited when issued.

It is clear that short-term inhalation exposures to TCE concentrations *at or below* the 1x10-6 (1 in one million) excess lifetime *cancer* risk (ELCR) inhalation screening level *are protective* for non-cancer hazards. However the inhalation reference concentration (RfC) protective for *non-cancer* effects is less than 10-fold higher than the 1x10-6 ELCR screening level, so exposures throughout the entire cancer risk target range (10-6 on the low end to 10-4 on the high end) cannot be considered protective for non-cancer hazards. Because one of the critical non-cancer health effects is congenital heart defects in infants born to mothers exposed during a critical period of pregnancy, short-term exposures are of especial concern.

2. I especially agree with HERO on the comments in sections a and c, namely that at least 2 sub-slab sampling events are warranted and that it may be more practical to perform indoor air sampling rather than further discussion on modeling.

If you have any questions, please call or email me. FYI, I will be out on personal travel starting Friday (11/16) and returning Monday 12/10.

Gerald F.S. Hiatt, Ph.D.
Senior Regional Toxicologist
U.S. EPA, Region 9
(415) 972-3064
Fax: 947-3520
hiatt.gerald@epa.gov